Effect of Job Specialization on the Hospital Stay and Job Satisfaction of ED Nurses

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Abstract

Background: In recent decades, the increasing crowdedness of the emergency departments has posed various problems for patients and healthcare systems worldwide. These problems include prolonged hospital stay, patient dissatisfaction and nurse burnout or job dissatisfaction.

Objectives: The aim of this study was to investigate the effect of emergency department (ED) nurses' job specialization on their job satisfaction and the length of patient stay in the ED.

Patients and Methods: This before-after quasi-experimental study was conducted from April to May 2014 at the Baqiyatallah Hospital, Tehran, Iran. Initially, 35 patients were recruited as controls and the length of their stay in the ED was measured in minutes via a chronometer; Moreover, nurses' job satisfaction was evaluated using the Mohrman-Cooke-Mohrman job satisfaction scale. Then, a job specialization intervention was developed based on the stabilization model. After of, 35 new patients were recruited to the treatment group and received specialized care services. Accordingly, the length of their stay in the ED was measured. Moreover, the same nurses' job satisfaction was re-evaluated after the study. The study intervention lasted one month. Data were analyzed using the SPSS software version 20 and statistical tests such as the Kolmogrov-Smirnov, the paired and the independent t, and chi-square tests.

Results: There was a significant difference between the two groups of patients concerning the length of their stay in the ED (P < 0.001). Moreover, compared with the pretest readings, nurses had greater job satisfaction after the study (P < 0.001).

Conclusions: The job specialization intervention can improve nurses' satisfaction and relieve the crowdedness of the EDs.

Keywords: Hospital Stay, Nurses, Job Satisfaction, Stabilization Model, Iran

1. Background

The emergency department (ED) is the heart of a hospital (1) and plays a prominent role in saving patients' lives (2). However, this unit suffers different problems and shortcomings such as crowdedness and limited number of beds (3, 4).

Many strategies such as increasing nurse-patient ratio (5) and employing emergency medicine specialists (6) have been developed for alleviating the problems of the ED and improving the quality of emergency care. Another strategy is decreasing the length of patients' stay in the ED. The ED length of stay (EDLOS) is defined as the time interval between being admitted to the department and being discharged from it (7, 8) and it is considered as a main criterion for evaluating the quality of emergency care (9). The mean of the EDLOS has been reported to be four hours (10). However, only 39% of Iranian patients have an EDLOS of shorter than four hours (11) while in Canada, America, and England respectively 76%, 72%, and 96%–98% of patients have had an EDLOS of shorter than four hours (12, 13).

One of the nursing job dissatisfaction factors is crowded-

ness (14). Staffs' satisfaction is among the key contributors to the productivity of each organization. Nurses' job satisfaction also is a key concept in nursing (15). It is directly correlated with the quality of nursing care (16). On the other hand, nurses' job dissatisfaction leads to burnout, emotional breakdown, anger, sense of inefficiency, and turnover as well as patients' increased mortality (17, 18).

Emergency care is a complex and multidimensional concept which is defined variously. Providing high-quality emergency care necessitates the use of effective care delivery models. One of the models which have been developed for improving the quality of emergency care is the stabilization model (SM). This model was developed by Mahmoudi et al. (19). Stabilization is a dynamic process which is started once a patient is admitted to the ED and is continued until the situation is stabilized. In this model, care delivery equates with situation stabilization. An important component of the SM is management enhancement. Studies showed that poor management and crowdedness of the ED are two major barriers to situation stabilization

(19-21). The removal of these barriers can facilitate the process of situation stabilization, shorten the length of patients' hospital stay, and give nurses and patients greater satisfaction. Given the crowdedness of the EDs (22), nurses increasing dissatisfaction (16), and considerable violence against emergency nurses (17), this study was undertaken.

2. Objectives

The aim of this study was to investigate the effect of emergency nurses' job specialization based on the SM on their job satisfaction and the length of patients' stay in the ED.

3. Patients and Methods

3.1. Design

This before-after quasi-experimental study was conducted in 2014 at the Baqiyatallah Hospital, Tehran, Iran. In this study the independent variable was the new organization of nurses based on the stabilization model evaluated on the dependent variables, including length of patients' hospital stay and the emergency nurse's job satisfaction.

3.2. Participants

The study population comprised of all patients referred to the ED of the Baqiyatallah Hospital. Patients who needed cardiopulmonary resuscitation or chose to be discharged were excluded. Moreover, nurses who held two-year or higher university degrees in nursing and had at least a six-month experience of practicing nursing in the ED were considered as eligible. Nurses who desired not to complete the study were also excluded. The Altman's nomogram was employed for sample size calculation. Accordingly, with an alpha of 0.05, a standard deviation of 5.31 (23), a power of 0.90, and an attrition of 10%, the sample size was determined to be 35 patients for each group.

Initially, the EDLOS of 35 patients (the control group) was measured in minutes by using a chronometer (Stopwatch New kit). Moreover, the Mohr man-Cooke-Mohr man job satisfaction scale (MCMJSS) was employed for evaluating job satisfaction. The MCMJSS contained 21 items and two domains namely internal satisfaction (seven items) and external satisfaction (14 items). The items are scored on a five-point Likert-type scale from 1 (completely dissatisfied) to 5 (completely satisfied). Reliability and validity of MCMJSS have been demonstrated by Manokian (24, 25).

Job specification began with the patients classified into five groups according to their problems. Then the nurses were classified into five groups according to their specialties and interests.

Thereafter, the participating nurses were educated to provide specialized emergency care by using the SM. They provided their SM-based specialized emergency care for one month (26). Finally, the EDLOS of 35 new patients who had received specialized care by using the SM as well as nurses' job satisfaction were measured.

Data were analyzed using the IBM SPSS Statistics Version 22. The Kolmogrov-Smirnov, the dependent- and the independent-samples t and chi-square tests were employed for data analysis.

3.3. Ethical Considerations

The ethics committee of Baqiyatallah University of Medical Sciences, Tehran, Iran, approved the study. Moreover, this study was registered in the Iranian Registry of Clinical Trials. The approval and the registry codes were 398 and IRCT201312162730N3, respectively.

4. Results

On total, 35 nurses and 70 patients participated in the study. The participating nurses were mostly male (68.6%), married (71.4%), and held bachelor's degree (85.7%). The means of their ages and work experience were 31.63 ± 7.7 and 8.66 ± 7.2 years, respectively. There were no significant differences between the two groups of patients regarding variables such as age, gender, type of insurance and chief complaint (P > 0.05).

The independent-samples t-test revealed that the two groups of patients differed significantly concerning the EDLOS (P < 0.001). Moreover, the dependent-samples t-test showed that nurses had greater job satisfaction after the study compared with the baseline readings (P < 0.001).

5. Discussion

This study aimed to assess the effect of emergency nurses' job specialization based on the SM on their job satisfaction and the length of patients' stay in the ED. Findings of the present study revealed that SM-based specialization of nurses' performance significantly shortened the length of patients' stay in the ED. Song et al. (27) also found that their specialization intervention reduced the length of hospital stay by 9%. Nancarrow (28) found that job specialization increased nurses' proficiency. A study by Health Quality Ontario (29) also is noted that specialization of nursing and offering specialized nursing programs such as Medical-Surgical Nursing, Pediatric Nursing, etc. can increase nurses' productivity. Other studies recommended strategies such as improving nurse-patient ratio (5), facilitating the process of patient transfer, admitting critically-ill patients to the relevant specialized units (30), and establishing monitoring units in the ED (31) for shortening the EDLOS.

We also found that before the study, the EDLOS was 361 minutes. The EDLOS in other Iranian clinical settings has been 240 - 353 minutes (32). In other countries, the EDLOS has been reported to be 241 (33), 220 (34), and 155 (35) minutes. This huge difference in the EDLOS for different studies, ranging from 155 to 353 minutes, can be attributed to the differences in the settings, samples, interventions, and management systems of the studies.

Study findings also revealed that our SM-based job spe-

cialization intervention significantly enhanced nurses' job satisfaction from 65.7 (62.5%) to 76.3 (72.7%). Iranian nurses' job satisfaction has been reported to be 57.7% (23). Chen et al. (36) also found that a participative management system based on quality circles significantly improved nurses' job satisfaction. Pan et al. (37) and Ho et al. (38) reported that organized job rotation can help fulfill organizational needs and enhance nurses' job satisfaction. In another studies, in line with our study the job rotation caused empowerment of nurses and increased their job satisfaction (36, 39). However, according to Sveinsdottir et al. (40), job rotation not only is incapable of overcoming nurses' job dissatisfaction, but also may negatively affect their satisfaction. In a study by Teo et al. (41) the job rotation was the cause of increasing nurses' stress and increasing stress had negative effects on outcomes of nursing care and the increasing dissatisfaction of nurses.

The SM-based job specialization intervention can both shorten the length of patients' stay in the ED and enhance nurses' job satisfaction. Accordingly, it can relieve the crowdedness of the EDs and can be used for improving the quality of emergency care. The results of this study can be used in management, clinical and education.

Acknowledgments

Footnotes

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